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## ABSTRACT OF THE DISCLOSURE

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A copper polish slurry, ~~useful in the manufacture of integrated circuits~~  
~~generally,~~ and for chemical mechanical polishing of copper and copper  
diffusion barriers ~~particularly,~~ may be formed by combining a chelating,  
organic acid buffer system such as citric acid and potassium citrate; and an  
10 abrasive, such as for example colloidal silica. Alternative copper polish  
slurries, in accordance with the present invention, may be formed by further  
combining an oxidizer, such as hydrogen peroxide, and/or a corrosion  
inhibitor such as benzotriazole. Advantageous properties of slurries in  
accordance with the present invention include the enhancement of Cu  
15 removal rates to >3000 angstroms per minute. This high polish rate is  
achieved while maintaining local pH stability and substantially reducing global  
and local corrosion as compared to prior art copper polish slurries. Local pH  
stability provides for reduced within-wafer non-uniformity and reduced  
corrosion defects. Furthermore, copper diffusion barriers such as tantalum or  
20 tantalum nitride may also be polished with such slurries wherein the oxidizer  
is not included.

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